to create, for example, an overall display comprising a rectangle having a height greater than the width. In this configuration, the overall display might be considered to emulate a conventional newspaper.

[0022] A device incorporating the display may unfold to become any desired display or digital device, and thus may provide an efficient apparatus for communication, information, and entertainment by accessing content dependent on the desired configuration. Any number of individual devices may be combined into a single unit, which, in addition to replicating functionality, replicates form and feel, and enables the presentation of information in such a way that the information can manipulated or encountered in any number of ways, including randomly, through "thumbing." By serving as a conduit to functionality, the combined devices may be used in concert or array, increasing by many orders of magnitude the versatility of the technology. Such versatility may be adaptable to consumer, as well as to commercial, uses. The technology liberates information use to be based on its usefulness, independent of device function.

[0023] Thus, a screen may be provided, which is, in one configuration, flat and folded in sections that can be opened to replicate look and feel of information containers devices of varying sizes. These include, but are not limited to, hand-held digital devices, mass market paperback books, trade paper back or hard cover books, glossy magazines, tabloid newspapers, broadsheet newspaper, high definition television, laptop or desktop computers, cell phones, or any of the other devices discussed herein or falling within the scope and spirit of the disclosure. Folding displays include touch screen interfaces that can replicate any known keyboard, stylus screen, or touch screen, including screens and interfaces with the ability to recognize fingertip handwriting. Folding displays include access to hard-wired, wireless, satellite or other networks to receive and send media and communications, to receive programming, and to any electronically packaged information accessible to electronic or electromagnetic devices anywhere on the globe. A series of nested configurations is provided with complete digital capability to self recognize and populate the display and functionality of the desired device, media, or other displayable information.

[0024] Devices incorporating the display technology described herein may function as virtual briefcases and entertainment centers, providing a digital container usable for any application of visual information display, from text to high-definition imagery. The display screen may serve as a massively-parallel display device displaying information in a format dictated by its size. In some embodiments, each time one or more display portions are unfolded along a particular axis or vertex, the prior axis or vertex locks so as to enable to size of the display to grow and to form a continuous screen consistent with the desired display format. For example, a user seeking to view emails or prices in a handheld device format may leave the screen in its minimum surface area configuration, such that a visual display and a functional touch keyboard display are presented. Unfolding this might create a two-sided display unfolding along a central spine (or axis) in the same manner as a mass market paperback, and could be populated with the cover art and the internal pages of a mass market paperback. In addition to the digital capability to identify a starting point or resume at the most recent point of closure, a "thumbing" capability would permit paging through the contents much as a physical paper book can be paged through, such that a particular set of words or objects could be recognized and randomly encountered. Similarly, the paperback book could be unfolded along its top or bottom edge, locking the spine of the prior embodiment and presenting a larger page format analogous to a hardcover book or glossy magazine. This configuration may have a similar capability to page through, either digitally or by "thumbing," so that random content can be encountered. Similarly, the top or bottom edge can again be unfolded, to replicate a tabloid newspaper format, and again to replicate a broadsheet newspaper format, or a widescreen and/or high-definition screen (such as a television display), or a white board.

[0025] The configurations for joining portions (e.g., vertex, axis, etc) and their dimensions may be variable so that an extremely broad array of display formats may be achieved by folding or unfolding, with any modifications necessary to achieve customary ratios addressed by folding the excess content to the outside to achieve the correct proportional dimensions. Similarly, display formats having sizes that are not consistent between two portions may be achieved by folding one portion more or less than another portion.

[0026] As mentioned elsewhere in the disclosure, display portions may be joined by hinges or other mechanical devices. Alternatively, the portions may be integrated and formed from a flexible material, such as an elastic memory plastic or plastic/metal alloy. Flexible spines, for example, may permit 180-degree folds at numerous locations. A stabilization mechanism (e.g., possibly a mechanically locking mechanism or magnetism) may be incorporated to stabilize the folding display in the desired format or configuration. Similarly, electronic processors may deliver information to and from display locations, analogous to the present day pixel, while also transmitting information from each such location based on its assigned role within the desired format and functionality.

[0027] The folding display configurations may have local broadcast capability to transmit audio to headsets or to any other audio speakers or audio processors, or to any other electronic component capable of receiving an electronic signal. Secure use may be ensured through use of biometric and/or other secure access technology to control both unauthorized use of the device and to enable access to content and communications networks.

[0028] More than one device can be used in concert to provide larger display areas while maintaining functionality, including the ability to be mounted on a wall to provide a visual display analogous to a theatrical movie presentation. In this case as well, authorized use may be controlled by users and the enabling of access to third-party content may similarly be limited to authorized users. Contiguous use of neighboring devices is not necessarily limited to a single wall, but could in fact include all walls and the floor and ceiling of a room to create complete visual environments.

[0029] Different sections of the device may perform different functions simultaneously, such as providing a text messaging capability on one side or the bottom, while permitting visual display in another display portion(s).

[0030] The folding screen may be disposable, and made available on a subscription basis, such that the device itself is merely a conduit to functionality, which is owned by the users and any chosen service or content providers.

[0031] While the embodiments discussed herein may refer to electronic displays associated with specific example devices, the invention is not limited to the specific example devices. These are provided for illustrative purposes only.